

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **POTASSIUM METAVANADATE**

Recommended Use of the Chemical and Restrictions on Use Catalyst, chemical intermediate, glass and ceramics. Industrial use.

Supplier: Ixom Operations Pty Ltd (Incorporated in Australia)
NZBN: 9429041465226
Street Address: 166 Totara Street
Mt Maunganui South
New Zealand

Telephone Number: +64 9 368 2700
Facsimile: +64 9 368 2710
Emergency Telephone: **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

SIGNAL WORD: DANGER

Subclasses:

Subclass 6.1 Category D - Substances which are acutely toxic.
Subclass 6.4 Category A - Substances that are irritating to the eye.
Subclass 6.8 Category B - Substances that are suspected human reproductive or developmental toxicants.
Subclass 6.9 Category A - Substances that are toxic to human target organs or systems.
Subclass 9.1 Category B - Substances that are ecotoxic in the aquatic environment.

Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017
Approval Number: HSR002503



Hazard Statement(s):

H302+H332 Harmful if swallowed or if inhaled.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary Statement(s):

Prevention:

P102 Keep out of reach of children.
P103 Read label before use.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P273 Avoid release to the environment.

Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 In case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Notice 2017. This may also include any method of disposal that must be avoided.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Potassium metavanadate	13769-43-2	100%	H319 H302 H332 H361 H372 H411

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once. Urgent hospital treatment is likely to be needed.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:

If skin contact occurs, remove contaminated clothing and wash skin with soap and water. If irritation occurs, seek medical advice.

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Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Never give anything by the mouth to an unconscious patient. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Unsuitable Extinguishing Media:

Water jet.

Hazchem or Emergency Action Code: 2X

Specific hazards arising from the chemical:

Decomposes on heating emitting toxic fumes including those of oxides of carbon. Environmentally hazardous.

Special protective equipment and precautions for fire-fighters:

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. Ventilate spill area. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation. Keep out of reach of children. When using do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Standards: No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

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Vanadium, as V2O5 Resirable dust & fume: WES-TWA 0.05 mg/m³

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The average airborne concentration of a substance calculated over an eight-hour working day.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Crystalline Powder
Colour:	Not specified
Odour:	Odourless
Odour Threshold:	Not available
Specific Gravity:	2.88
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not available
Autoignition Temperature (°C):	Not available

Product Name: POTASSIUM METAVANADATE
Substance No: 000000001472

Issued: 20/03/2020
Version: 1

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Solubility in water (g/L): >10
Melting Point/Range (°C): 520
pH: Not available

10. STABILITY AND REACTIVITY

Reactivity: No information available.

Chemical stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions: None known.

Conditions to avoid: Avoid dust generation. Avoid exposure to direct sunlight. Avoid exposure to extremes of temperature.

Incompatible materials: Incompatible with strong acids, strong bases.

Hazardous decomposition products: Oxides of carbon. Oxides of potassium. Oxides of vanadium.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain.

Eye contact: An eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Breathing in dust may result in respiratory irritation.

Acute toxicity:

Oral LD50 (rat): 314 mg/kg
Dermal LD50 (rat): >2500 mg/kg
Inhalation LC50 (rat): 1.85 mg/L/4hr

Skin corrosion/irritation: Not classified.

Serious eye damage/irritation: Irritant.

Respiratory or skin sensitisation: Not classified.

Chronic effects:

Mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (STOT) - single exposure: Not classified.

Specific Target Organ Toxicity (STOT) - repeated exposure: Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Avoid contaminating waterways.
Persistence/degradability:	No information available.
Bioaccumulative potential:	No information available.
Mobility in soil:	No information available.
Aquatic toxicity:	Toxic to aquatic organisms. May cause long lasting harmful effects to aquatic life.
48hr LC50 (Daphnia magna):	1.52 mg/L
96hr LC50 (fish):	0.693 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land; DANGEROUS GOODS.



UN No:	2864
Transport Hazard Class:	6.1 Toxic
Packing Group:	II
Proper Shipping Name or Technical Name:	POTASSIUM METAVANADATE
Hazchem or Emergency Action Code:	2X

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No:	2864
Transport Hazard Class:	6.1 Toxic
Packing Group:	II
Proper Shipping Name or Technical Name:	POTASSIUM METAVANADATE
IMDG EMS Fire:	F-A
IMDG EMS Spill:	S-A
Marine Pollutant	Yes

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Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No: 2864
Transport Hazard Class: 6.1 Toxic
Packing Group: II
Proper Shipping Name or Technical Name: POTASSIUM METAVANADATE

15. REGULATORY INFORMATION

Classification:

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

Subclasses:

Subclass 6.1 Category D - Substances which are acutely toxic.
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This material is not listed on the New Zealand Inventory of Chemicals.

16. OTHER INFORMATION

Supplier Safety Data Sheet; 01/ 2016.

Reason(s) for Issue:

First Issue Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

